

WE CLAIM:

1. A method for controlling a brake motor, the method comprising:  
receiving brake motor information;  
5 determining a first brake motor voltage value and a brake motor current value based on the motor information when the brake motor is active;  
determining a brake motor resistance value based on the first brake motor voltage value and the brake motor current value;  
determining a brake motor temperature value based on the determined  
10 brake motor resistance value; and  
producing a brake motor control signal based on the determined brake motor temperature value.
2. The method of claim 1, further comprising:  
15 determining a second brake motor voltage value when the brake motor is inactive; and  
producing a motor diagnostic voltage value based on the determined second brake motor voltage value.
- 20 3. The method of claim 1, wherein the brake motor is selected from the group consisting of: a multi-phase brake motor and a DC brush type motor.
4. The method of claim 1, wherein determining the first brake motor voltage value comprises:  
25 determining a first and a second active phase brake motor voltage values of the brake motor; and  
determining an absolute value of the difference of the first and the second active phase brake motor voltage values.

5. The method of claim 1, wherein the brake motor current value is selected from the group consisting of: link current information and motor current information.

5 6. The method of claim 1, wherein determining the brake motor temperature value comprises:

comparing the determined brake motor resistance value to a database;  
identifying the brake motor temperature value associated with the brake motor resistance value; and

10 receiving the brake motor temperature value from the database.

7. The method of claim 6, wherein the database is a lookup table.

8. The method of claim 6, wherein the database includes at least one value  
15 derived from a known motor resistance at a single temperature.

9. A computer readable medium storing a computer program comprising:  
computer readable code for determining a first brake motor voltage value  
and a brake motor current value based on motor information when a brake motor is  
20 active;

computer readable code for determining a brake motor resistance value  
based on the first brake motor voltage value and the brake motor current value;

computer readable code for determining a brake motor temperature value  
based on the determined brake motor resistance value; and

25 computer readable code for producing a brake motor control signal based  
on the determined brake motor temperature value.

10. The computer readable medium of claim 9, further comprising:  
computer readable code for determining a second brake motor voltage  
value when the brake motor is inactive; and  
5 computer readable code for producing a motor diagnostic voltage value  
based on the determined second brake motor voltage value.
11. The computer readable medium of claim 9, wherein the brake motor is  
selected from the group consisting of: a multi-phase brake motor and a DC brush type  
10 motor.
12. The computer readable medium of claim 9, wherein the computer readable  
code for determining the first brake motor voltage value comprises:  
computer readable code for determining a first and a second active phase  
15 brake motor voltage values of brake motor; and  
computer readable code for determining an absolute value of the  
difference of the first and the second active phase brake motor voltage values.
13. The computer readable medium of claim 9, wherein the brake motor  
20 current value is selected from the group consisting of: link current information and motor  
current information.
14. The computer readable medium of claim 9, wherein the computer readable  
code for determining the brake motor temperature value comprises:  
25 computer readable code for comparing the determined brake motor  
resistance value to a database;  
computer readable code for identifying the brake motor temperature value  
associated with the brake motor resistance value; and  
computer readable code for receiving the brake motor temperature value  
30 from the database.

15. The computer readable medium of claim 14, wherein the database is a lookup table.

5           16. The computer readable medium of claim 14, wherein the database includes at least one value derived from a known motor resistance at a single temperature.

10           17. A system for controlling brake motor, the system comprising:  
              means for receiving brake motor information;  
              means for determining a first brake motor voltage value and a brake motor current value based on the motor information when the brake motor is active;  
              means for determining a brake motor resistance value based on the first brake motor voltage value and the brake motor current value;  
15           means for determining a brake motor temperature value based on the determined brake motor resistance value; and  
              means for producing a brake motor control signal based on the determined brake motor temperature value.